

**COMPUTATIONALLY EFFICIENT, PLATFORM-INDEPENDENT  
DATA TRANSFER PROTOCOL**

**ABSTRACT OF THE DISCLOSURE**

5

A computationally efficient, platform-independent data transfer protocol includes executing a depth-first traversal of a data tree representing a query or a query response to generate message elements, each element representing a node or a leaf of the tree. Each element has a name field and preceding the name field, a name size field. Also, each element has a data type field that indicates one of only two type - node or leaf. Following the data type field is a value size field. In the case of node elements, the value size field indicates the number of nodes and/or leaves under the associated node. In the case of leaf elements, the value size field indicates the size of the value contained in the leaf, with a value field immediately following the value size field in leaf elements. The elements are grouped and sent as a message over the Internet.